



A FACILITATOR'S GUIDE



For Municipal Collaboration on Climate Planning

- A Cohort Approach -

Prepared by

**Atlantic Infrastructure
Management Network**

Produced with support from



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Keywords and Concepts

AIM Network	Atlantic Infrastructure Management (AIM) Network
Asset Management	A process of making decisions about the use and care of assets to deliver services in a way that considers current and future needs, manages risk and opportunities and balances this with affordability.
Climate Adaptation	Changes in processes, practices, and structures to moderate potential damages or to benefit from opportunities associated with climate change.
Climate Mitigation	Reducing the flow of heat-trapping greenhouse gases into the atmosphere.
Adaptation Pathways	A sequence of adaptation actions that consider uncertainty in climate predictions. Current action can be followed by different “pathways” depending on the actual magnitude of climate change impacts in coming years.
FCM	Federation of Canadian Municipalities (FCM).
GHG	Greenhouse gas emissions.
Municipal Cohort	A group of municipalities with similar characteristics such as geography, littoral cells, similar climate impacts, close geographic proximity, or coastal climate concerns.
Lead Municipality	This municipality assumes a leadership role within the cohort, dedicating staff time to coordinating the regional project.
Climate Hazard	Refers to the potential occurrence of climate-related physical events or trends that may cause damage and loss. They are agents of disaster such as tornados or hurricanes caused by atmospheric disruptions.
Climate Risk	The potential for climate change to create adverse consequences for human or ecological systems. This includes impacts on lives, livelihoods, health and well-being, economic, social and cultural assets and investments, infrastructure, services provision, ecosystems and species.
Climate Vulnerability	The degree to which natural built and human systems are at risk of exposure to climate change.

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Introduction

This guide is written to help you facilitate or lead a program where municipalities work with each other to address shared climate concerns. It is written to be used by municipal staff, community groups or third-parties wanting to assist municipalities with climate action. The guide is based on experiences of Atlantic Canadian municipalities, but is written to help municipalities across Canada wanting to collaborate on climate action. By getting together with other municipalities to work on climate resilience, you will immediately see benefits by:

- Adopting common processes and practices for climate risk evaluations and prioritizing projects.
- Working through risk assessments with a wider group of people to share ideas.
- Sharing resources for planning projects and getting funding.
- Collecting common information and data to stay current with changing conditions.
- Cooperating on planning decisions that require action across municipal boundaries.
- Developing projects together that are more efficient and more likely to be funded.
- Conducting public engagement at a regional level.

i. Overview

Municipalities in Atlantic Canada are witnessing the impacts of a changing climate. Just in the past three years, the region has seen major damage from flooding, wildfires, wind, and storm surges to name a few. Coastal erosion is also a significant concern for many communities. Small and rural communities often lack the staff and resources needed to fully understand and respond to climate vulnerabilities. Regional collaboration is an effective and efficient approach to addressing these constraints and move toward accessible climate adaptation.

The impact of a changing climate on municipal services and infrastructure must be considered in the context of other risks and costs such as aging infrastructure and growth pressure. Adding complexity, climate impacts do not respect municipal boundaries. This makes cooperation beyond jurisdictional boundaries necessary at a scale that we have not typically needed in the past. Municipalities working together on a common problem creates economies of scale, allows resource sharing and helps prevent knowledge loss over time. Engaging your community early in



planning provides value by building awareness and support for climate action.

With these principles in mind, AIM Network facilitated five cohort groups in four Atlantic Provinces in a regional adaptation initiative over two years (2022-2024). The program included training and technical assistance delivered through a series of workshops where cohorts undertook vulnerability assessments, updated policies, and documented level of service targets for climate adaptation. Each cohort undertook a regional public engagement activity to solicit input, provide education, and build awareness of climate concerns for the region. Lastly, cohorts identified an adaptation initiative for future action

and developed terms of reference (TOR) to continue collaborating on climate adaptation. This guide provides direction in planning a Climate Cohort Program and an overview of key activities and outcomes of each cohort:



Section 1
Program Planning,
Delivery, and
Wrap-Up



Section 2
Case Studies of
Climate Cohorts



Section 3
Reflections on
Project Successes
and Challenges

ii. About Us

AIM Network is a federally incorporated not-for-profit organization comprising a network of individuals and organizations having an interest in or responsibility for the management of municipal infrastructure in Atlantic Canada.

Our primary mandate is to advance asset management practices at the local government level in Atlantic Canada. To strengthen and enhance the asset management planning capabilities of our participants, we facilitate the exchange of information among provincial and municipal governments, associations and societies, consultants, and individuals. We also develop and share tools, knowledge products, best practice strategies, and methodologies.



iii. Acknowledgements

AIM Network acknowledges that much of the work this guide aims to support will take place in the ancestral homelands of numerous First Nations, Inuit, and Métis peoples. Each region of Canada has a unique cultural history, and we are continually learning more about how we can better move forward the work of truth, reconciliation, and equity. Without demonstrable change in what we do, land acknowledgments are empty statements. They mark the beginning of the work ahead of us, not the end. We encourage users of this guide to consider how building relationships and keeping an open mind to different ways of viewing and acting in the world can help lead to more mindful stewardship of the land and environment that we are privileged to share.

AIM Network acknowledges the strong dedication to regional climate action demonstrated by each municipality involved in the Climate Summit Program.

This initiative was delivered through the Municipal Asset Management Program, which is delivered by the Federation of Canadian Municipalities and funded by the Government of Canada.



SECTION 1:

Program Planning, Delivery, and Wrap-Up



1.1 Planning a Climate Cohort Program

The steps outlined below will help with planning a facilitated program with a group of municipalities.

Program Objectives

Write a statement around a common climate-related problem or risk that the program aims to address. This helps to provide a common understanding of the program objectives.



Cohort Formation

Develop a profile of municipalities impacted by the problem with similar characteristics such as geography, littoral cells, similar climate impacts, close geographic proximity, or coastal climate concerns.



Program Design

- The program will be most beneficial when it includes:
- Building awareness of a common understanding of climate concerns.
 - Technical assistance to produce tangible climate planning activities.
 - Public engagement to solicit input from residents and stakeholders.
 - Identified next steps toward continued collaboration.

Prepare a Budget

Include detailed costs for each Program activity and identify funding sources.



Prepare a Communications Plan

Determine what information participants need to know and how you will communicate the information.





Program Objectives

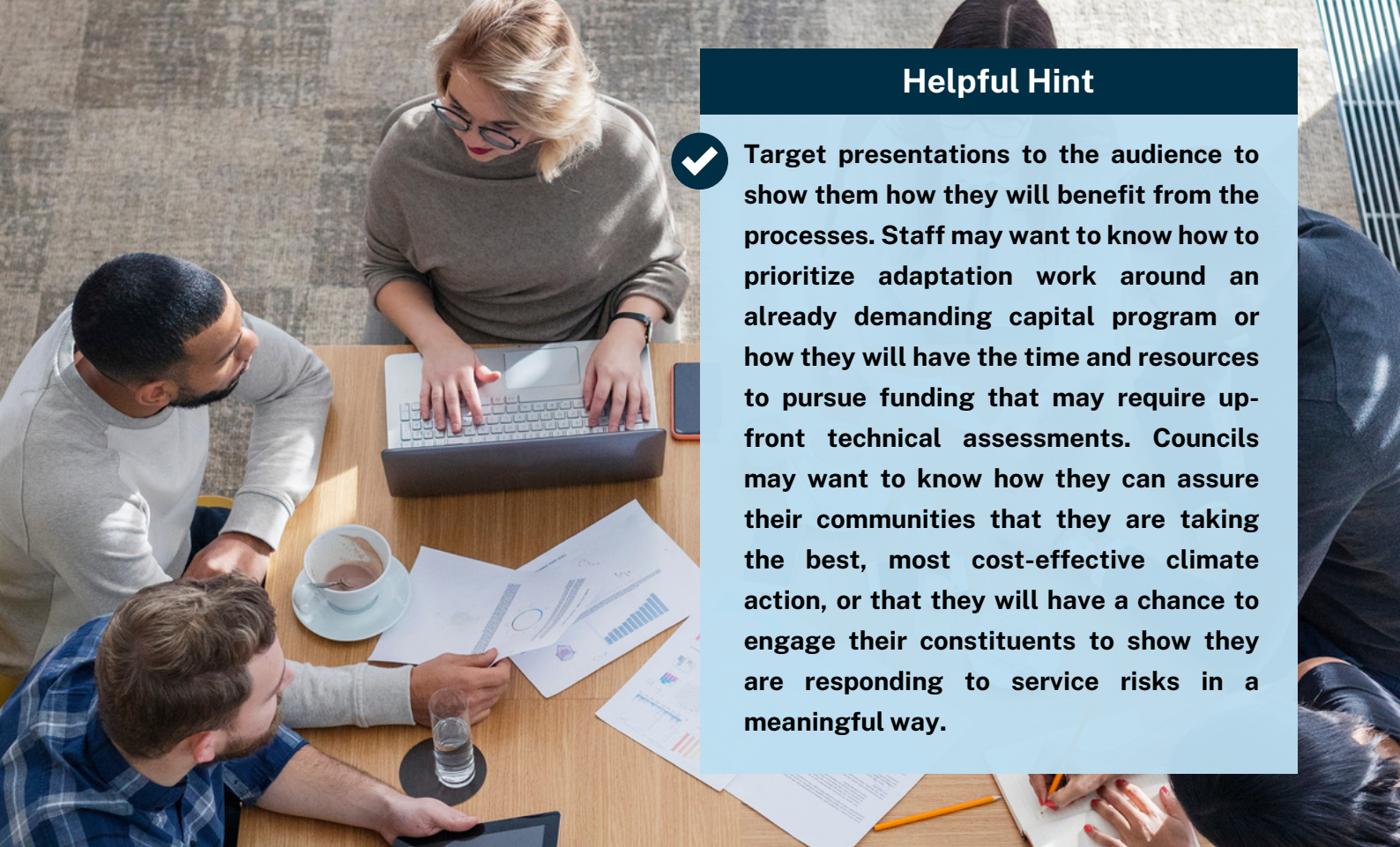
If you think that a program like this would benefit your communities, you can take one of two broad approaches to getting your cohort together.

- 1** Identify a specific climate risk that the program seeks to address. This is best done with a group of municipalities that may or may not be in the same geographic area but all share concerns with a specific climate impact.
- 2** Focus on common processes, procedures and funding strategies for climate adaptation. This is best suited to a group of municipalities in the same geographic region that can meet regularly to discuss progress, revise processes, share staff and look for further collaboration opportunities.

In any approach, it is important to incorporate program outcomes with the municipalities' asset management planning. Climate resilience projects need to be undertaken at the same time as capital renewal of aging infrastructure and construction of new infrastructure to support growth. It is important that these activities are complementary and not competing for limited capital. Asset management planning activities are the way to ensure this alignment.

If the goal is to address a specific risk, the facilitator should clearly outline the concern and set clear timeframes under study and consider uncertainties in climate impacts that will be explored. Identifying the climate risk to be addressed in the program will help municipalities decide on vulnerability to that risk, whether it is a priority concern, and whether they should consider participating. Established guides such as the Public Infrastructure Engineering Vulnerability Committee's (PIEVC) High-Level Risk Assessment and Portfolio assessment guides can help you work through defining climate events and risk to services.

An alternative approach is for the program to focus on common processes and approaches to climate, allowing the cohort to undertake activities together such as defining risk, assessing impacts to service levels and defining cost constraints. This may or may not lead to similar events of concern among all municipalities in the cohort or the need to address the same adaptation initiatives. While most municipalities are experiencing the impacts of climate change and have some level of knowledge about climate risks, where they are experiencing multiple risks and vulnerabilities, starting with a risk assessment process is a good initial step toward prioritizing actions.



Helpful Hint



Target presentations to the audience to show them how they will benefit from the processes. Staff may want to know how to prioritize adaptation work around an already demanding capital program or how they will have the time and resources to pursue funding that may require up-front technical assessments. Councils may want to know how they can assure their communities that they are taking the best, most cost-effective climate action, or that they will have a chance to engage their constituents to show they are responding to service risks in a meaningful way.

Forming Cohorts

The program objectives help target your outreach to municipalities who might participate in the program. Develop a profile of the municipalities that may benefit from participating in the program and outline the similar characteristics that would make an ideal cohort to start your first discussions. You may focus on a geographic region or those sharing a specific climate risk. If the program objective is to develop processes and approaches to understanding and adapting to climate risks, the target municipalities might be those in the early stages of climate planning instead of those concerned with a specifically identified risk.

Having a champion for an initiative among the participants helps generate

and maintain momentum in a program. Identifying a lead municipality to champion a cohort program is a good first step in cohort formation. A lead municipality may be able to provide in-kind support such as assisting with the recruitment of other municipalities, acting as a liaison within the cohort, and ideally may be able to provide additional support such as staff resources.

Prepare a program outline in the form of a summary brochure and distribute it to recruit municipalities for the program. It is reasonable to expect that more information will be requested from potential partnering municipalities, and you can plan a follow-up with online or in-person presentations with staff and council.

Program Design

The program design should be based on program objectives. Understanding the end goal helps build program content and delivery methods. Addressing climate risks can be very complex, and costly and require long-term planning, so it will be important to establish the scope of the program offering and stay focused.

While it is not necessary to have the final program designed at the planning stage, it will be important to have some information in addition to program objectives such as program timelines, cost to participate, level of effort, program delivery format, and intended outcomes.

A key determinant of the program scope (i.e. the number and types of activities) will depend on the program duration. A comprehensive cohort program that includes awareness building, technical assistance, and community engagement activities will normally take place over a one- to two-year period.

Before climate adaptation initiatives are undertaken, especially large capital-intensive projects, it is very important to have sufficient data to understand risks and vulnerabilities. Including awareness-building activities in a program to first build a common understanding among participants about climate risks lays the foundation for other program activities.

Technical assistance activities provide an opportunity for municipalities to

Helpful Hint



Start with the end in mind: Build a program that supports a meaningful climate adaptation plan. Outcomes are most effective when they target continuing action, not just reporting without clear follow up.

do climate planning through workshop activities such as risk and vulnerability assessments, developing climate policies, and identifying and costing potential adaptation initiatives.

Public engagement provides an opportunity to engage residents and other stakeholders to share information and obtain buy-in. There are many ways to engage the public such as in-person events including town hall meetings, a climate summit, webinars, surveys, etc.

Consideration should be given to providing pathways for the cohort participants to continue their climate planning through ongoing collaboration when the program ends.

Building a climate program that eventually leads to an achievable climate adaptation plan with defined follow up (instead of recommendations with significant cost or resource barriers), can take significant time and effort. Your program may be an initial step or an incremental step, but it is important for municipalities to get started from where they are to move toward actual resiliency action.

Helpful Hint

- ✓ **New climate data and information are becoming available in real-time. Design your budget with some flexibility to adjust and adapt without materially impacting the bottom line.**



Prepare a Budget

Establishing a detailed budget when program design has not been fully developed can be challenging but it is important, as municipalities will need to know their costs before deciding on participation. It is also important to indicate what is not included in the registration fee such as participant travel to events or activities.

The best approach is to build your budget with as much detail as is available. For program activities that are not yet clearly defined, undertake a detailed estimate for training costs including travel, venue, food, materials, facilitation, etc. to obtain a reasonable estimate and then determine a maximum budget for the activity, including contingency. Identifying areas where cost savings can be achieved if necessary to offset unanticipated higher costs in other

areas or where activities can be scaled to fit the budget is a good practice in budgeting.

In a cohort program being offered over a span of time of one to two years, having some flexibility within your budget can be beneficial. Being able to adapt to additional data that may become available, new information that may emerge, or even changes within the participating municipalities such as staff changes or other unforeseen events, may enhance planned activities and/or improve the program outcomes but may also impact program costs. Including a small contingency of say five to fifteen percent to the overall budget is a good approach, if possible, with higher contingencies for less clearly defined programs.

Prepare a Communications Plan

During the planning stage, your communications will be focused on the recruitment of municipalities to form the Cohort. At a minimum, it will consist of a brochure with the key information a municipality will need to determine if the program is a good fit. Consideration should also be given to how you will distribute the information.

The goal of this communication plan is to define how the cohort group will engage participants, promote the activities, invite stakeholders and engage the media where needed. The communication plan will provide detailed descriptions of:

WHO

Target audience for official and informal communications and the team member responsible for leading outreach.

WHY

The purpose of the communication.

HOW

The format used to communicate the information.

WHAT

The information you are planning to share.

WHEN

When and how often you will share this information.

The objectives of the communication plan are:

- 1 To ensure alignment between cohort programming and each municipality's goals.
- 2 To plan for the required technical, audio and visual aids required for the workshops or engagements.
- 3 To inform participants of ongoing program development and solicit feedback.
- 4 To assemble an engaging and relevant program for the program activities
- 5 To generate resident interest and awareness of the program purpose and outcomes
- 6 To ensure proper review and approval of communications by cohort members

Helpful Hint



The primary consideration in planning any communication is the target audience. Staying laser-focused on your audience for each communication will help keep your communications clear and concise.

1.2 Program Delivery

Cohort Formation

Using the ‘lead municipality’ approach in a cohort program is optional. If the intention is to take this approach and a lead municipality has not yet been identified, that should be the first step. The lead municipality can be very helpful in engaging its peers, customizing the program to the regional context, and communicating the benefits of the program to other potential candidates.

To solicit initial interest, prepare a one or two-page brochure that includes program objectives and/or a profile of an ideal candidate municipality. It should also include the program timeline, cost to participate, level of effort, program delivery format(s), and intended outcomes. If it is not a regional cohort (e.g. a provincial or national program) and in-person activities are included that involve

travel outside their region, it is important to specify this in the brochure. Distribution of the program information may be either targeted or circulated more broadly.

Many municipalities are just getting started on climate planning, so it will be important not to underestimate the amount of time and level of effort involved in developing interest and commitment and identifying appropriate participants. In a larger municipality where multiple departments and staff need to participate or in many smaller communities where the council will need to approve participation and the registration fee, it will likely take multiple forms of communication and touchpoints with potentially interested municipalities before a cohort is fully formed.



Program Design and Delivery

The first step in detailed program design is to document the planned outcomes and decide on the best delivery format to achieve your program objectives and to deliver the planned program outcomes. The delivery formats referenced in the planning section of this guide include awareness building, technical assistance, and community engagement. Your program may comprise either or all of these, considering other factors such as the scope, timeline, and budget.

Awareness Building

When working with a cohort, awareness building is important for bringing all participants to a common understanding of climate risks and impacts or about climate adaptation resources and methodologies. Much work is taking place in real time by governments, NGOs, and other agencies to provide improved climate data and information. Integrating timely information into your program will lead to better climate planning and adaptation.

Awareness building can be either separate activities or may be incorporated as part of technical assistance or community engagement activities.



Technical Assistance

A 'learn and do' approach where participants use their own municipality's data and information in a workshop environment to undertake climate planning activities will add the most benefit to a program. It will be important to provide a clear understanding of the intended outcome(s) or tasks to be completed in each workshop and to allocate an appropriate amount of time at each session for task completion.



Activity tools and templates should be selected and tested in advance. Careful consideration should be given to the prior knowledge or information required to successfully complete the activity. The degree of awareness building required will determine whether it should take place separately before the technical assistance activity or if it can be incorporated into the same session.

Technical assistance activities are best

done through in-person workshops. A great advantage of a cohort program is the opportunity to share information and experiences, building support among a network of peers. This is most beneficial when executed in person. Providing dedicated time at an off-site location minimizes distractions and provides the best opportunity for facilitators to support participants as the activity is being worked on.



Community Engagement

The steps below are provided as a guide for developing your public engagement strategy:

1 Identify the Goals and Objectives of the Public Engagement

Clear and concise statements on the purpose of the public engagement inform the agenda and desired outcomes. Some examples are:

- ✓ Educate citizens about climate risks.
- ✓ Inform citizens about impacts on service levels resulting from climate change.
- ✓ Garner input that will influence the municipality's response to climate disasters.
- ✓ Create a shared vision and build buy-in on the need for climate planning.

2 Determine the Level of Public Engagement

Decide on the purpose and level of engagement. Consider the following for guidance:

Inform

One-way communication provides balanced and objective information to assist understanding of the topic.

Examples: Advise the community of specific climate risks and impacts, or inform the community on direction or plans to address climate risks.

Consult

Two-way communication designed to obtain public feedback about ideas including rationale, alternatives, and proposals to aid in decision-making.

Examples: Seeking comment on proposed climate action or providing an option for enhanced participation by residents and stakeholders.

Involve

A participatory process designed to identify issues and views to ensure concerns and aspirations are understood and considered before decisions are made.

Example: Inviting input from the community through discussion and debate on climate adaptation or mitigation measures.

Collaborate

Working with the public to develop an understanding of all issues and interests with the intent to work out alternatives and identify preferred solutions.

Example: A committee or group with citizen representatives and subject matter experts to provide input on a climate-related issue.

Empower

Empower the community to develop solutions and implement them.

Example: Providing options for responding to a climate disaster or risk and placing the final decision in the hands of the public.



3 Determine Engagement Methods

To be effective, public engagement methods should be designed to provide participants with an experience that is welcoming, easy to participate in, and efficient. Once the level(s) of engagement are set, it will be easier to choose preferred methods. The following are techniques appropriate for each level of engagement:

Inform >>>

- Fact Sheets
- Websites
- Open houses

Consult >>>

- Public Comment
- Focus Groups
- Surveys
- Public Meetings

Involve >>>

- Workshops
- Public Polling

Collaborate >>>

- Citizen Committees
- Consensus building
- Participatory decision-making

Empower >>>

- Ballots
- Citizen Juries
- Delegated Decisions

Source: International Association for Public Participation

4 Identify Internal and External Stakeholders

Internal stakeholders may include department heads, staff, and the council. Some examples of external stakeholders include the public, environmental stewardship societies, marginalized hard-to-reach populations, industry associations, and educational institutions.

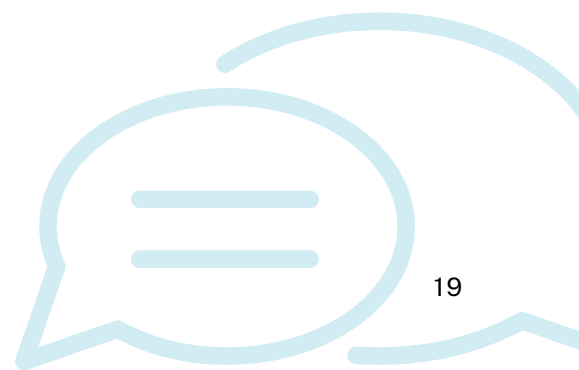
5 Administration

To implement the community engagement plan, consider the following administrative tasks :

- ✓ Set a schedule and timeline for the engagement activity(s).
- ✓ Identify logistical requirements such as facilities, food and beverage, room set-up; and audio-visual requirements for in-person events.
- ✓ Create the communication and media plan, identify roles for participation by staff; prepare materials such as handouts, PowerPoint presentations, registration; and participant evaluation forms.
- ✓ Create a public engagement budget. Consider the costs of the following:
 - Communications such as print/radio/TV ads, website; media releases; direct mail; newsletters; posters, and flyers.
 - Hard costs such as communications consultants, public opinion surveys, AV equipment, facilities, food and refreshments, and communications materials.
 - Paid presenters including subject matter experts and travel expenses if required.
 - Soft costs include the project team costs or additional internal consulting costs.

6 Conduct the Engagement and Undertake Follow-up Actions

Participants and stakeholders value follow-up actions. It is important to provide participants with feedback on the value derived from their participation. If the purpose of the engagement was solely to inform, the follow-up action may be only to thank them for their interest and time. If it were to obtain input, the follow-up action might state how their input will be used to impact future actions or decision-making.



1.3 Program Wrap-Up

Climate risks are looming large for many municipalities and the impacts are resulting in huge financial costs for adaptation and mitigation measures. The measures taken to upgrade infrastructure or amend services must be considered in the context of existing infrastructure and services. Climate risks must be integrated with other risks to municipal services and infrastructure; changes in service levels resulting from climate adaptation must be integrated with existing service level targets; and climate policy must align with and be

integrated with asset management policies. The priority should be to integrate program outcomes with municipal asset management planning and programs.

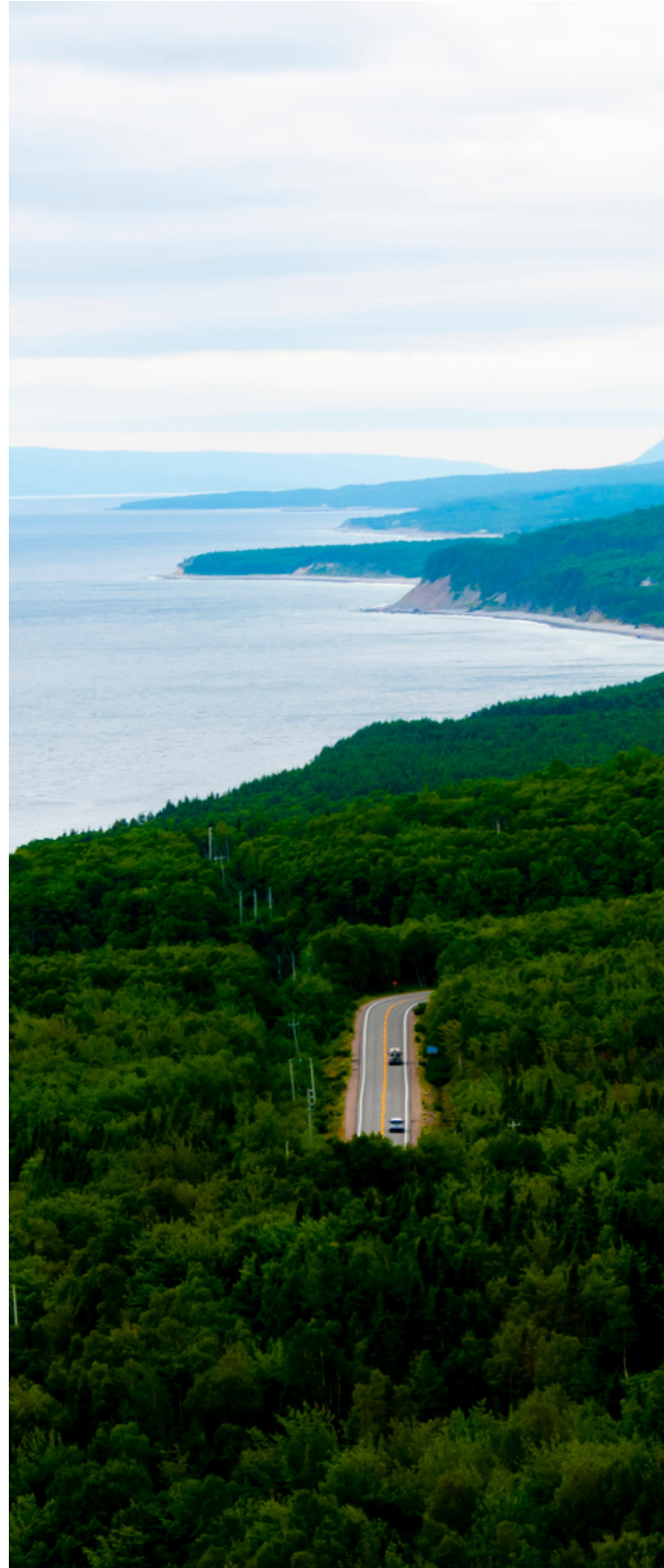
Once the educational and training aspects of the cohort program have been delivered, you will want to ensure the outcomes are available and communicated to those who need to know. Here are some suggestions for facilitating pathways to continued climate planning and collaboration by the participating municipalities.

- ✓ Prepare a written report for each municipality providing an overview of the program outcomes including items such as amended policies, risk assessments, natural asset assessments, or a summary of the community engagement activity.
- ✓ Arrange a presentation for the councils of participating municipalities to showcase program outcomes.
- ✓ Facilitate the development of a partnership agreement or a terms of reference for continued collaboration among the cohort.
- ✓ Encourage and facilitate the identification of a climate adaptation project or initiative that the cohort may collaborate on to keep things moving.



SECTION 2:

Case Studies



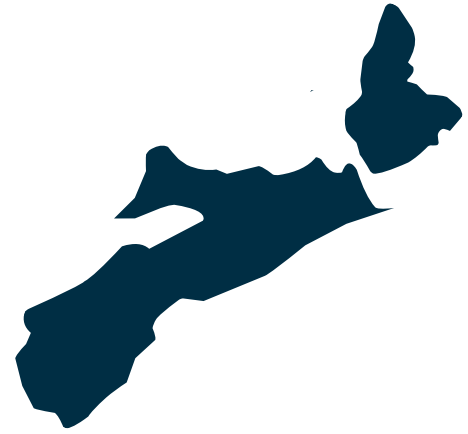
2. Case Studies

Five regional Cohorts were formed across Atlantic Canada; two in Nova Scotia, one in New Brunswick, one in Newfoundland and Labrador, and one in PEI. Each cohort was comprised of three to seven municipalities with a common mandate to collaborate on regional climate adaptation initiatives that support asset management planning within their municipalities.

The following section of the guide introduces each respective Cohort and provides an overview of the following: the cohort formation process, the regional climate engagement event, cohort workshops, the regional project, next steps, and key takeaways.



2.1 North Nova Scotia Cohort



Overview

Pictou County is a region in Northern Nova Scotia stretching along the Northumberland Shore, with a land area of 2,846 km² [1]. The region is comprised of six municipalities and Pictou Landing First Nation. The region has a population of 43,657 [2]. The dramatic coastline, warm waters, vast forests, and agricultural land provide this region with natural resource benefits, and characterize their climate vulnerability with extreme weather events, coastal erosion, rising sea levels, and extreme heat.

Pictou County experienced firsthand the devastating impacts of climate change from Post-Tropical Storm Fiona, resulting in significant damage to property, infrastructure, forests, and shorelines. Many residents were without power for over ten days.

Cohort Formation

The Northern Nova Scotia Cohort comprised six municipalities, including the towns of New Glasgow, Pictou, Stellarton, Trenton, and Westville, and the Municipality of the County of Pictou.

The Town of New Glasgow served as the lead municipality, and their two dedicated climate staff oversaw the planning and coordination of the public engagement. The cohort's overarching objectives were rooted in public engagement and awareness.

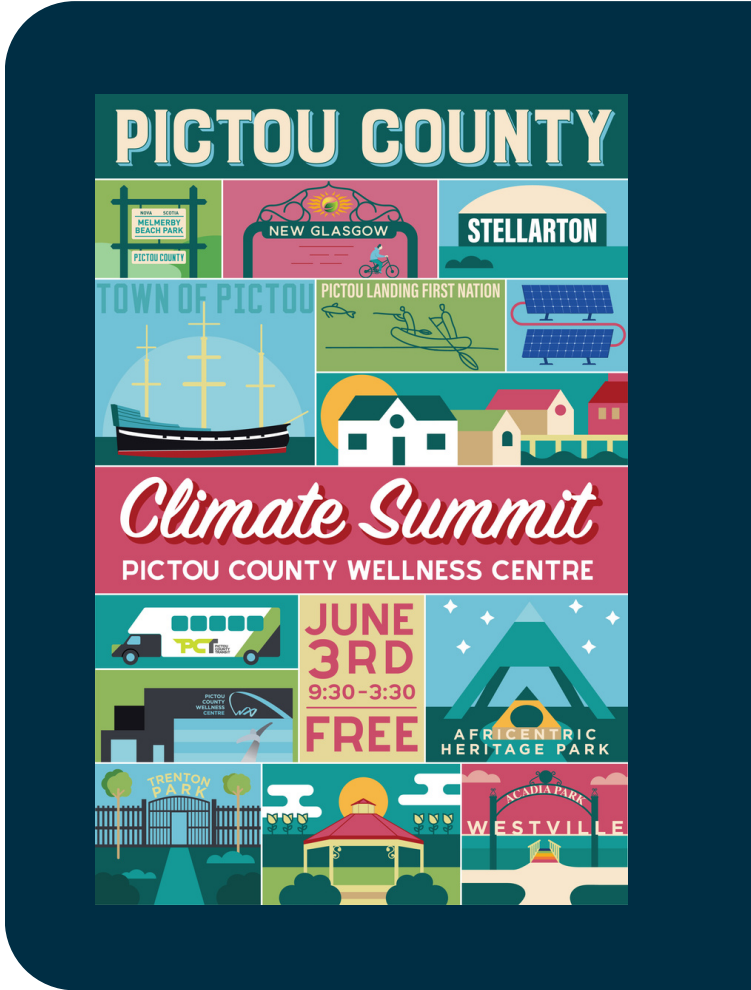
Cohort Workshops

The Cohort met for four workshops and fourteen planning meetings during which they completed the following exercises:

- Updated their municipality's Asset Management Policy incorporating a commitment to climate adaptation and mitigation.
- Undertook an infrastructure portfolio climate vulnerability assessment using the PIEVC Portfolio and High-Level assessment tool.
- Documented Level of Service targets and costs for climate adaptation and mitigation.
- Identified a standardized climate risk assessment framework and each participating municipality identified an adaptation project for inclusion in their five-year capital plans.

Regional Climate Engagement Event

The cohort planned a Climate Summit event featuring speakers and guest panels, along with an exhibitor's hall for participants to learn more about local businesses and organizations. With the impacts of the storm top of mind for residents, the Pictou County Climate Summit was an opportunity to reflect on the challenges of Fiona, learn more about climate projections, energy efficiency programs, climate change and health, Indigenous perspectives, the importance of trees, and more. The event was hosted by the Councils of the participating municipalities with over 175 attendees in total, and thirty info booths from community groups, environmental organizations, and businesses.



PICTOU COUNTY CLIMATE SUMMIT AGENDA

9:30-10:00 | Opening Ceremony
with Tonya Marie Francis, Pictou Landing First Nation

10:00-11:00 | Opening Remarks & Keynote Speech

Opening Remarks with Sean Fraser, MP for Central Nova; Minister of Immigration, Refugees and Citizenship

Keynote Speech 'Vital Signs of the Planet' with Cindy Day, Meteorologist and Author

11:00-11:15 | Break

11:15-12:00 | Expert Panel on Climate Action and Energy Efficiency in the Home & Workplace
with Dr. Wayne Groszko, Ph.D., Applied Energy Research Scientist, Nova Scotia Community College; Katie Giles, Senior Manager, Energy Department, Clean Foundation; Kaelan Keys, Business Development Manager, Efficiency Nova Scotia

12:00-12:30 | Lunch & Door Prizes

12:30-1:00 | Lunch Talk on Climate Impacts in Pictou County
Alex Cadell, Nova Scotia Climate Services Specialist, CLIMAtlantic

1:00-1:30 | Climate & Health
with Dr. Cristin Muecke, Regional Medical Officer of Health for North Zone, Nova Scotia Health Authority

1:30-1:45 | Break

1:45-2:15 | Presentation on Indigenous Perspectives on Climate Action & the Environment
with Michael Maracle-Polak, Executive Director, Pictou Landing First Nation

2:15-2:30 | Talking Trees
with Tony Mummery, Water Utility Forester and GIS Analyst, Town of New Glasgow

2:30-3:00 | In the Intersection of Climate, Equity, and Environmental Justice
with Elissama Menezes, Project Co-lead, Inspiring Communities; and Climate and Shipping Consultant

3:00-3:15 | Youth Session on Climate Education

3:15-3:30 | Closing Remarks & Grand Prize
with Wes Surrett, Northern Regional Manager, IGNITE Atlantic

Regional Project

The North Nova Scotia cohort assessed possible regional initiatives, including cooperating on active transportation work, developing a common approach to land use and design standards, as well as conducting a regional climate vulnerability assessment. Through a consensus building workshop, the cohort agreed to develop a common approach for assessing climate vulnerability within their communities that would balance the need for adaptation work with ongoing priorities

from development pressure and aging infrastructure.

Next Steps

The municipalities developed a regional climate group terms of reference and will continue to meet to plan further public engagement, discuss progress on priority projects and assist each other when applying for funding for adaptation work.

Key Takeaways

- Developed updated policy language to incorporate climate vulnerability in all asset management decisions.
- Public feedback was incorporated into the following workshops for climate vulnerability risk screening and project selection when assessing the consequences of infrastructure failure from climate change driven events.
- Communities include members of the public in ongoing climate work through their terms of reference for ongoing regional collaboration.
- Communities are considering an annual Climate Summit event.
- Public feedback was incorporated into the regional climate vulnerability assessments to help determine the consequence of service failure from weather events, particularly for lower income and marginalized populations.
- Compiled a list of adaptation projects to pursue in the next two years.



2.2 Southern Nova Scotia Cohort



Overview

The South Shore region's Lunenburg County has a population of 48,599 [3] and a land area of 2,906.47 km² covering a long stretch of Atlantic Ocean coastline. The region is known for its seaside communities, forty plus lighthouses, famed seafood, and history of tall ship filled harbours [4]. The shoreline has experienced an increasing frequency and severity to their harsh weather events, with high winds, accelerated coastal erosion, and a heightened risk of wildfires and major flooding events, which has resulted in considerable damage to infrastructure.

The South Shore was impacted by devastating wildfires in the spring of 2023. A month and a half later, the region was hit by an extreme rainfall event causing major destruction and loss of life. The Southern Nova Scotia Cohort municipalities, particularly the Town of Bridgewater, experience flash flooding as a result, with severe damage to the community and town assets.

Cohort Formation

The Southern Nova Scotia Cohort consisted of the Towns of Mahone Bay and Bridgewater, and the Municipality of the District of Lunenburg.

Cohort Workshops

The Cohort met for four workshops and twenty-eight planning meetings, supplemented by two council question and answer sessions with each municipality. These activities supported the following exercises:

- Updated their municipality's Asset Management Policy incorporating a commitment to climate adaptation and mitigation.
- Undertook a Natural Asset Assessment to identify opportunities to support adaptation and climate resilience through management and enhancement of nature-based assets.
- Documented Level of Service targets and costs for climate adaptation and mitigation. and/or a natural asset assessment.
- Selected a priority nature-based asset project to complete in the next five years.

Regional Climate Engagement Event

The regional climate event had two main parts. On Friday evening, the 'Sustainability Social' was a blend of networking and storytelling with short presentations from residents on local sustainability initiatives. The Sustainability Summit on Saturday brought together local decision-makers, community groups, and the public for an entire day to discuss collaborative responses to the climate emergency. Hosted by the councils of the participating municipalities, the event took place at the Nova Scotia Community College campus in Bridgewater.

The chosen regional focus for the event was nature-based asset management. Presentations included Dr. Peter Duinker from Dalhousie University discussing urban forest management, David McIsaac from Halifax Regional Municipality (HRM) on HRM coordination on trails and active transportation, and AIM Network leading a discussion on levels of service for nature-based assets. The day concluded with a brainstorming session on the importance of nature-based assets' performance and future collaboration.

The Summit was well-attended with over 160 participants and a trade show of over twenty local exhibitors, including NGOs, businesses, and community groups.

THE SOUTH SHORE SUSTAINABLE SOCIAL

FRIDAY, SEPTEMBER 22, 2023 - 6PM TO 8PM
FIRKINSTEIN BREWING, 673 KING ST. BRIDGEWATER

A STORYTELLING & NETWORKING EVENT

- Kelp Kurious: Seaweed Farming in Indian Point – Merydie Ross, Ecology Action Centre
- Homelessness and the Climate Crisis – Lisa Ryan
- Connecting Kids to Nature – Donna Stapleton, Small World Learning Centre
- Using Technology to Reduce Home Energy Use – Jenish Patel, Shivam Dinesh Rank, & Hargun Chhabra, Town of Bridgewater
- Regenerative Farming – Josie Rudderham, Rivercroft Regenerative Farm
- Creating a Co-Housing Community – Terry Lavender, Treehouse EcoHousing
- Energize Bridgewater: Reducing Energy Poverty in our Community – Jessica McDonald, Town of Bridgewater
- Food Forest at Bluenose Academy – Teresa Quilty
- Community Tree Inventory – Lauren Clarke, Town of Mahone Bay
- Building a Passive House – Martha Myers

FREE - NO REGISTRATION REQUIRED

SCAN THIS QR CODE TO VISIT OUR WEBSITE

The Sustainable Social is part of the South Shore Sustainability Summit. After the Social, join us from 9:30am to 4pm on Saturday, September 23 at NSCC Lunenburg Campus (75 High St, Bridgewater). Saturday registration: aimnetwork.ca/climate-summit-registration

YOU'RE INVITED!

THE SOUTH SHORE SUSTAINABILITY SUMMIT

Our Shore, Our Responsibility.

Please join us for a FREE all-ages community event, to discuss building climate change solutions, together.

We've got an excellent line up of speakers, panelists, exhibitors, and opportunities to network, collaborate and share ideas.

- ✓ INCREASE AWARENESS OF CLIMATE CHANGE.
- ✓ ENHANCE COLLABORATION BETWEEN NEIGHBOURING MUNICIPALITIES & CITIZENS.
- ✓ GIVE OPPORTUNITIES FOR CITIZENS TO VOICE THEIR CONCERNS.
- ✓ LEARN ABOUT CURRENT CLIMATE INITIATIVES AND BEST PRACTICES.

PROTECT OUR SHORELINE

THE CLIMATE CHALLENGE: WHO'S UP FOR IT?

SEPTEMBER 23 2023
9 AM - 4 PM
NSCC LUNENBURG CAMPUS
75 HIGH ST, BRIDGEWATER

DROP IN OR REGISTER FOR THE FULL DAY WITH LUNCH INCLUDED. FOR MORE INFORMATION OR TO REGISTER PLEASE VISIT:
aimnetwork.ca/climatecohorts

SCAN TO REGISTER

FUNDED IN PART BY:

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Regional Project

The cohort assessed a few possible regional initiatives, including revising their REMO agreement to better reflect needs during climate change driven storm and fire events that were experienced from 2022 to 2023, developing a regional electric vehicle network, collaborating on a public transportation expansion from the area to HRM and management strategies for nature-based assets. Following a consensus building workshop and guided by the initial vulnerability assessment, the cohort chose to develop a common approach to defining levels of service for nature-based assets. They also chose to establish a framework for prioritizing these projects through risk assessments that would link the of

management of nature-based assets to conventional asset management priorities. This framework provides both a transparent and quantitative way to direct investment that considers climate priorities and use or protection of natural assets along with priorities driven by aging infrastructure and demands from community growth.

Next Steps

The municipalities developed a regional climate group terms of reference and will continue to meet to plan further public engagement, discuss progress on priority projects and assist each other when applying for funding for adaptation work.

Key Takeaways

- Developed updated policy language to incorporate climate vulnerability in all asset decisions.
- Collected input from elected officials to inform service levels for nature-based assets.
- Communities include members of the public in ongoing climate work through their terms of reference for ongoing regional collaboration.
- Communities are considering an annual event to follow up on action driven by the previous years' activities.
- Compiled a list of future projects to continue regional collaboration, including outreach to surrounding municipalities that did not participate in the cohort.

2.3 Newfoundland and Labrador Cohort



Overview

Gros Morne National Park is located in the Great Northern Peninsula of Western Newfoundland covering an area of 1,805 km². A UNESCO World Heritage Site [5], this park is one of the few places in the world where the Earth's mantle and deep ocean crust lie exposed. Glacial activity has shaped the region's breathtaking scenery which includes coastal lowlands, alpine plateaus, fjords, glacial valleys, steep cliffs, waterfalls, and pristine lakes.

Gros Morne is home to several small coastal communities. Climate impacts in this region are characterized by warmer, wetter, and stormier conditions. Given the coastal nature of the park, sea level rise, flooding, coastal erosion, saltwater intrusion, and changing sea ice conditions and ocean acidification are of particular concern [7].

Cohort Formation

The Newfoundland and Labrador Cohort consisted of the seven municipalities of Gros Morne, including the Towns of Woody Point, Glenburnie-Birchy Head-Shoal Brook, Trout River, Norris Point, Rocky Harbour, Cow Head, and St. Paul's. These communities have a cumulative population of 2,530 [6]

residents and already had a semi-formal working relationship through the Gros Morne Tourism Regional Implementation Project, so this cohort did not have a Lead Municipality. AIM Network oversaw planning and coordination integrating input from staff and council of each municipality.

Cohort Workshops

The Cohort met for four workshops and fourteen planning meetings during which they completed the following exercises:

- Updated their municipality's Asset Management Policy incorporating a commitment to climate adaptation and mitigation.
- Undertook an infrastructure portfolio climate vulnerability assessment using the PIEVC Portfolio and High-Level assessment tool.
- Documented Level of Service targets and costs for climate adaptation and mitigation.
- Identified a standardized climate risk assessment framework and each participating municipality identified an adaptation project for inclusion in their five-year capital plans.

Regional Climate Engagement Event

Given the recent impacts experienced during Post Tropical Storm Fiona in 2022 as well as the unprecedented fire season in central Newfoundland and Labrador in 2023, the cohort's main objectives were to increase awareness and understanding of climate impacts, projections, and risks for the region; enhance public participation; and strengthen regional collaboration on climate disaster preparedness and emergency management. The cohort designed a phased strategy consisting of a preliminary public survey followed by a series of engagement events.



Survey

Developed collaboratively, the survey aimed to evaluate the current level of climate change awareness, identify specific areas of concern, and pinpoint potential knowledge gaps.



Town Halls

Survey results were used to inform the design of the cohort's Climate Roadshow event, which consisted of a series of Town Halls and public forums.



Climate Roadshow

The Climate Roadshow facilitated discussions among Gros Morne region residents, local decision-makers, and community organizations. The aim was to share insights on local climate action and collaboratively identify solutions for managing climate-related emergencies. The input gathered during these events is being utilized to guide ongoing regional cooperation for future climate action initiatives.

Regional Project

The cohort assessed three potential regional initiatives, including shared engineering services to assist in infrastructure scoping for climate change, a regional document to define land-use and design standards, and a climate vulnerability assessment. Due to community concerns related to coastal flooding and erosion, as well as a catastrophic event that occurred along the Newfoundland coast in Port-aux-Basques, the group decided to undertake a vulnerability assessment of coastal infrastructure in the region and develop a solution that was scaled and accessible to communities of their size. This means ensuring a proposed adaptation project that could be financed through available funding and municipal revenue.

Next Steps

The communities have received a report that identifies their critical risk areas over five-, twenty and one hundred-year periods. It was important to them to notice that the risks change over these periods, both for the types of events they are trying to adapt to, as well as the solutions they might put in place. The group completed a term of reference to continue meeting quarterly to discuss funding models and approaches to fund, design and construct their adaptation projects. They all understand each other's priorities and will be looking for opportunities to submit joint funding applications for similar work as well as support each other in building and submitting funding applications.

Key Takeaways

- Developed updated policy language to incorporate climate vulnerability in all asset decisions.
- Collected input from community engagement and elected officials to inform decisions on adaptation priorities in the community.
- Adopted a common approach and completed training on portfolio and high-level climate vulnerability assessments to allow information sharing and support between communities as they adapt to impacts of climate change.
- Developed a common strategy for considering climate change and land use in the context of adaptation pathways.
- Compiled a list of adaptation projects to pursue in the next two-years.

2.4 New Brunswick Cohort



Overview

Northern New Brunswick is characterized by a diverse geography of rolling hills, vast forests, and picturesque valleys. Serving as the most northern extent of the Appalachian Mountain Range, the region stands out for its rich topography. The numerous rivers in the area play a significant role in shaping the region's hydrology, along with the nearby Gulf of St. Lawrence, which significantly influences the area's climate dynamics [8]

Climate change hazards and risks for the region include rising average annual temperatures and more frequent extreme weather events, resulting in more severe droughts and heatwaves as well as concern for sea-level rise and increased range of vector-borne diseases [9].

Cohort Formation

The New Brunswick cohort consisted of the municipalities of Haut-Madawaska, Saint-Quentin, and the City of Edmundston, focused on climate risk priorities, highlighting concerns in land management, stormwater drainage, inland flooding, and habitat protection. The regional service district (CSRNO) served as the cohort's Lead Municipality. Based on

the identified climate risk priorities, a Natural Asset Assessment rather than Portfolio assessment was conducted. Collaborating with AIM Network, the cohort worked to develop a standardized method for evaluating levels of service and risk for nature-based assets, aligning them with capital renewal of built infrastructure.

Cohort Workshops

The Cohort met for four workshops during which they completed the following:

- Updated their municipality's Asset Management Policy incorporating a commitment to climate adaptation and mitigation.
- Conducted a high-level portfolio climate vulnerability assessment to determine general priorities.
- Documented Level of Service targets and costs for climate adaptation and mitigation through managing nature-based assets.
- Identified projects to protect or enhance nature-based assets to include in five-year capital plans.

Regional Climate Engagement Event

Elected Officials Summit

Recognizing the differences among the partnering municipalities in terms of climate impacts, progress made on adaptation planning, Council support, financial and staff capacities, as well as past successes with community engagement, the New Brunswick cohort chose first to develop a public survey to assess perceptions of climate impacts in Northern New Brunswick. The survey served as a first step in promoting regional education and engagement on community climate action. The survey was distributed online to residents across the region, including the City of Edmundson, Haut-Madawaska, Saint-Quentin, the Ville de Valle-des-Rivieres, Grands Falls Regional Municipality, Northwest Rural District, and Madawaska Maliseet First Nation.

The results of the survey were used to inform the design of cohorts Elected Officials Summit.

The Elected Officials Summit was held to engage council in the work that staff and the regional service district had been doing to build action on protecting natural assets.

At the Summit, AIM Network facilitators:

- Presented an overview of natural assets versus built assets, and why they are important to municipal governance.
- Facilitated a discussion among the council members on what is important to them with respect to management of natural assets, considering economic impacts, flood risk, availability of clean water and cost to the community.
- Presented the results of the natural asset level of service and risk assessment and gathered comments for the final report and level of service standard.
- Facilitated a discussion on proposed projects and funding streams.
- Presented next steps and the role of community engagement in decision making.



Regional Project

Some of the cohort's participating municipalities had already been looking at climate vulnerability due to recent flood events in the area. They were aware of the main areas at risk but found it challenging to identify how to best address the issues, especially since future risk was linked to managing nature-based assets like land cover. Through a consensus building workshop, and based on the initial vulnerability assessment, the participating municipalities decided to develop a common approach to defining levels of service for nature-based assets and building a framework to prioritize these projects through risk assessments that would link management of nature-based assets to their conventional asset management priorities. This framework offers a clear and quantitative approach to guide investments, taking into account climate priorities, the use or protection of natural assets, as well as addressing priorities stemming from aging infrastructure and community growth demands.

Next Steps

The communities had already been working closely with each other through the efforts of the provincially run regional service commission. However, this cohort program was a collaboration that was not mandated by any senior level of government. Follow up from the program will be seeking funding for priority projects to protect or enhance natural assets that were identified through the developing the risk and level of service assessment processes. Throughout program delivery, efforts towards assessing natural assets were aligned with a program to collect and catalogue natural assets at the regional service commission. The communities will continue to build their natural asset inventories and use the processes to define and act on future priorities. They will also participate in an upcoming consultation project with the Canada Standards Association to align adaptation work with planning activities and help build national standards for natural asset risk and level of service assessments.

Key Takeaways

- Developed updated policy language to incorporate climate vulnerability in all asset management decisions.
- Collected input from the communities using an online and paper survey.
- Adopted a common approach and completed training on level of service and risk assessments for nature-based assets.
- Integrated these assess with ongoing work through the regional service commission on cataloguing and prioritizing protection and enhancement of nature-based assets.
- Developed a terms of reference to continue working together on climate issues after the project ended.

2.5 Prince Edward Island Cohort



Overview

Just off the coast of Nova Scotia and New Brunswick, Prince Edward Island is Canada's smallest province nestled in the Gulf of the St. Lawrence. The region is characterized by beautiful pastoral landscapes, picturesque seascapes, and red sand beaches. Given its geography and context, the well-being of PEI's economy and quality of life is dependent on clean air and water, as well as well-managed soil resources [10].

Cohort Formation

The Prince Edward Island Cohort consists of the Towns of Three Rivers, Stratford and Cornwall, and the Rural Municipality of West River.

According to the most recent province-wide Climate Change Risk Assessment, the main current and future climate risks for the region include coastal erosion, post-tropical storms, heat waves, and intense rain and flooding.

Unaddressed, these threats pose significant risk on the health, social stability, environment, infrastructure and all economic sectors of the island [11].

Cohort Workshops

The Cohorts met for four workshops and two planning meetings during which they completed the following exercises:

- Updated their municipality's Asset Management Policy incorporating a commitment to climate adaptation and mitigation.
- Undertook an infrastructure portfolio climate vulnerability assessment using the PIE-VC Portfolio and High-Level assessment tool.
- Documented priority projects and costs for climate adaptation.
- Identified a joint project for inclusion in five-year capital plans.

Regional Climate Engagement Event

The public engagement session in PEI was a webinar, open to the public, elected officials and municipal staff. Because their climate risk assessment processes could be used anywhere in the province, the webinar was promoted through the PEI municipal association and opened to any community in the province. The webinar took place in two parts; the first was a presentation of how municipalities are addressing climate risk in the island province. The second part was an open forum discussion, moderated by AIM Network, to allow community members to ask questions or provide comments on municipal service risk from climate change. This evening session served as a two-way conversation for residents to get informed on how municipal climate action is happening and for council and staff to get informed on the concerns of their constituents.

Regional Project

The participating municipalities assessed possible regional initiatives, including working with the province on land-use planning in unincorporated areas outside the municipal boundaries, shared services for inspection and bylaw enforcement for environmental protection and a regional climate vulnerability assessment. Through a consensus building workshop, the participating municipalities decided to develop a common approach to assessing climate vulnerability in their communities that would balance the need for adaptation work with ongoing priorities from aging infrastructure and development pressure in the communities.

— PRINCE EDWARD ISLAND  —
CLIMATE ADAPTATION
— LIVE WEB EVENT —

Next Steps

The participating municipalities had all adopted the same risk assessment process for their infrastructure and identified projects within their communities that would provide the greatest move toward resilience. They jointly assessed policy updates to address new resilience issues like where the boundary of municipal responsibility lies for risk to the community outside publicly owned infrastructure. They will also cooperate in pursuing funding for their projects under upcoming programs. The communities will continue to share information and experience as they build their steps to climate resiliency and incorporate these projects with their asset management planning activities.



Key Takeaways

- Developed updated policy language to incorporate climate vulnerability in all asset decisions.
- Adopted a common approach and completed training on portfolio and high-level climate vulnerability assessments to allow information sharing and support between communities as they adapt to impacts of climate change.
- Held a community engagement Q&A via live stream webinar with AIM Network climate professionals to give an overview of the risk assessment and project priority process, and answer questions from attendees.
- Compiled a list of adaptation projects to pursue in the next three to five-years.

SECTION 3:

Reflections on Project Successes and Challenges





In the case of the North Nova Scotia Cohort and the Pictou County Climate Summit, Town of New Glasgow climate change staff had previously completed community outreach and engagement in the development of their Community Climate Action Plan, positioning them as the Lead Municipality for their cohort.

3.1 Reflections on Project Successes and Challenges

Cohort Formation

Municipal collaboration can be complex. Both the challenges and opportunities with this type of program come from this complexity. Each aspect of the program required a lot of coordination which resulted in many unanticipated planning sessions. Keeping sustained engagement of key participants in the planning and delivery of activities over a two-year period requires constant communication. The delivery team learned that setting up regular check in meetings at the outset helps to keep on track with program goals and adapt to changing needs as the program develops.

In all cases, it was easy to identify a Lead Municipality. However, it can be more difficult for the Lead Municipality to clearly explain the program goals and outcomes to municipal partners when program participation required buy-in from staff and Council for over a two-year period. To help this process, it is important to have a short, concise summary sheet to clearly lay out the project goals, required time commitment from staff and council, concrete outcomes and anticipated costs of participating,



Cohort Workshops

Some of the workshop activities and outcomes required developing new tools and resources or the modification of existing ones which increased preparation time. Some of the activities were not able to be completed by all municipalities during the allocated workshop time, resulting in unanticipated additional time by municipal staff and additional support from the AIM Network team.

As can be expected with groups comprising several municipalities with multiple attendees from each, planned activities and timelines needed to be adjusted frequently. As such, it was difficult to adhere to the planned schedule for nearly all cohorts.

Using the lessons learned in this guide will help to keep your project focused on end goals and on track.

Regional Climate Engagement

Planning for a regional community engagement session is an extensive undertaking requiring many hours to ensure the engagement objectives are clearly defined and met. Identifying topics and presenters, identifying stakeholder groups, arranging and disseminating publicity material and arranging logistics such as venue, food, audio-visual needs, etc. takes a lot of time. It was costly and exceeded the Program budget which required volunteer time from the delivery team and added financial resources from community sponsors.

It was particularly challenging to find an appropriate time to hold the in-person sessions that accommodated all key stakeholder groups, municipal staff and councils.

Helpful Tips for Collaboration

- ✓ **The biggest challenge in setting up workshops is aligning schedules. Set up a workshop schedule at the beginning of the program and use this to as a benchmark for activities and to lock activities in participants' schedules.**
- ✓ **Provide agendas for workshops ahead of time and allow time for discussion.**
- ✓ **Be flexible.** Always keep your end goals in mind and don't let a rigid plan stop you from adapting to needs as you go. Keep your map in hand but don't be afraid to take a detour if an opportunity arises!



Planning time takes longer than expected



May need consistent and frequent meetings



Budget contingency



Plan for schedule changes

The sessions were held on weekends or evenings to allow attendance by Councils and community members; however, some staff were unable to attend at that time.

In addition to, or in place of, the in-person engagement session, some Cohorts chose online engagement activities such as an online survey of constituents, public web events, resident participation in the planning groups, and youth group surveys. These were unique to each Cohort and required additional time and resources to develop, administer, and summarize results.

Public Awareness Matters!

One group's residents were most concerned with the potential **impacts of storm surge, coastal flooding, coastal erosion, and sea level rise on roads, bridges, and buildings**. Yet, **64%** of survey respondents were unaware about ongoing climate action and existing emergency response plans before the cohort program.

Another group's survey respondents were most concerned with **flood protection, secure drinking water supplies, heatwave preparedness, and wildfire management**. Yet, **78%** of respondents were unaware of any steps taken by their community to adapt to the impacts of climate change.

Helpful Tips for Collaboration



A collaborative planning process takes time, requiring a balance of patience and maintaining momentum.



Reach out early to potential collaborators to ensure enough time is available to assess how they may like to participate.



Design targeted outreach efforts. For the Gros Morne cohort, town hall meetings included Parks Canada, emergency management, councillors, and community champions. The Nova Scotia cohorts invited exhibitors and presenters from community groups, non-profits, climate action groups and local First Nations.

Challenges

- The needed time investment requires focused commitment over a long period.
- Lack of full-time dedicated staff for climate projects and a lack of Council knowledge of risks of inaction are significant barriers to making climate action urgent.
- Despite supportive Councils, limited financial and human resources prevent climate action plans from being implemented.
- Many municipalities have historically struggled with community engagement, specifically survey participation and public meeting attendance by underrepresented groups.



Lessons Learned

- Survey responses revealed community concerns regarding climate impacts and gaps in knowing what municipalities are doing to address them.
- All Cohorts took an approach that recognized the urgency of climate change while keeping a positive atmosphere to inspire meaningful action.
- Municipal responsibilities to regulate development and protect property under climate change are still unclear in legal and policy frameworks

Success Stories

- The CLIMAtlantic guide: *Climate Risk, Responsibility, and Liability for Municipalities* started policy discussions on adaptation responsibility.
- The Nova Scotia South Cohort built on a history of successful collaboration. With at least one dedicated climate staff person from each municipality, they had capacity a Climate Summit with over 150 people.
- The Gros Morne surveys had a high portion of survey responses for the communities' sizes. The public events had great engagement with attendance between 25 and 40 residents at each Town Hall.
- The Pictou County Cohort brought CAOs from each municipality together regularly to discuss ideas and share feedback. Councils were engaged throughout for the co-design of the Climate Summit's program and structure.
- Developing climate projects resulted in new toolkits for municipalities:
 - a climate vulnerability assessment tool based on the PEIVC protocol for portfolio and high-level risk assessments to support funding applications
 - a natural asset level of service tool to define services provided by nature-based assets, risks to those services and actions needed to support them.
- Each participants finished with a defined project for adaptation funding.
- Working through the Program goals in a workshop setting demonstrated both the uniqueness of climate concerns in different communities and the ability to find common ground to work together on these unique concerns.

3.2 Don't Forget The Big Picture

Managing infrastructure now is different from the past. Risks from climate change, aging infrastructure and growing populations are a perfect storm for municipalities these days. It is no longer about adjusting our old way of doing things; we need to rethink why and how we deliver services.

Fortunately, many municipalities have adopted an asset management planning approach over the past few years for services and infrastructure, where they are documenting risks, service level targets and gaps and costs for renewal and replacement. A risk-based approach to prioritizing projects helps with deciding where to allocate scarce resources. Where climate risks are paramount, a regional approach can be an effective way of reducing costs through sharing of resources.

It is important as well not to lose sight of the importance of managing aging assets along with addressing,

The results of the public engagements conducted by each cohort can and should be used to inform future climate adaptation planning and risk reduction efforts.



Possible regional collaborations include:

- Developing policy objectives to define municipal responsibilities with respect to climate adaptation through land use regulations, development bylaws and infrastructure investment.
- A common approach to vulnerability assessments and shared project to complete them,
- Nature-based asset management through level of service and risk assessments,
- Regional active transportation corridors,
- Shared development and design standards,
- Common land-use guidelines with the aim of protecting function at a watershed scale,
- Integration of regional emergency response services,
- Regional coastal protection activities using nature-based solutions, or
- Anything you and your neighboring colleagues can dream up.

The important message is that the effects of climate change are here now and will only increase. We cannot stand alone to meet these challenges and there is nothing “business as usual” with infrastructure management in the twenty-first century. By improving

collaboration and supporting strong community involvement in decision-making, we may not only rise to the occasion in preparing for climate change, but can use it as an opportunity to improve and build on the communities that we live in.



References

1 – Healthy Pictou County, the Destination Eastern and Northumberland Shores Tourism Association, the Pictou County Regional Enterprise Network, and the Pictou County Chamber of Commerce. (2020). Welcome Home to Pictou County Guide: A community guide to the place we call home. <https://www.coastalnovascotia.ca/wp-content/uploads/2020/10/Pictou-County-Welcome-Home-Guide-2020.pdf>

2 – Government of Canada, S. C. (2022, July 13). Focus on Geography Series, 2021 Census - Pictou (Census division). [Www12.Statcan.gc.ca. https://www12.statcan.gc.ca/census-recensement/2021/as-sa/fogs-spg/Page.cfm?lang=E&topic=1&dguid=2021A00031212](https://www12.statcan.gc.ca/census-recensement/2021/as-sa/fogs-spg/Page.cfm?lang=E&topic=1&dguid=2021A00031212)

3 – Statistics Canada. (2022, February 9). Census Profile, 2021 Census of Population. [Www12.Statcan.gc.ca. https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/details/page.cfm?LANG=E&GENDERlist=1](https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/details/page.cfm?LANG=E&GENDERlist=1)

4 – Nova Scotia Tourism. (2023). South shore: Coastal charm, outdoor adventure, sea-inspired, artisans and cuisine - all here on the south shore. <https://www.novascotia.com/sites/default/files/2023-06/South-Shore-TG2023-En.pdf>

5 – UNESCO World Heritage Centre. (2018). Gros Morne National Park. [Unesco.org. https://whc.unesco.org/en/list/419/](https://whc.unesco.org/en/list/419/)

6 – Government of Canada, S. C. (2022a, February 9). Select from a list of geographies - newfoundland and labrador. [Www12.Statcan.gc.ca. https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/search-recherche/lst/results-resultats.cfm?Lang=E&GEOCODE=10](https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/search-recherche/lst/results-resultats.cfm?Lang=E&GEOCODE=10)

7 – CLIMAtlantic. (2023, August 22). Climate Data in Action: Bringing Climate Data to Your Neighbourhood: Tools for Local-Level Adaptation. [CLIMAtlantic. https://climatatlantic.ca/blog/bringing-climate-data-to-your-neighbourhood-tools-for-local-level-adaptation/](https://climatatlantic.ca/blog/bringing-climate-data-to-your-neighbourhood-tools-for-local-level-adaptation/)

8 – Forbes, E. (2021, January 27). Geography of New Brunswick | The Canadian Encyclopedia. [Www.thecanadianencyclopedia.ca. https://www.thecanadianencyclopedia.ca/en/article/geography-of-new-brunswick](https://www.thecanadianencyclopedia.ca/en/article/geography-of-new-brunswick)

9 – Wade, T., & Pâquet, Dr. M. (2021). Understanding Climate Change and Health Implications: A Background Report to New Brunswick's Climate Change and Health Vulnerability & Adaptation Assessment Project . In https://www2.gnb.ca/content/dam/gnb/Departments/h-s/pdf/en/HealthyEnvironments/HealthADAPT_Background-Report.pdf. Department of Health, Public Health New Brunswick.

10 – Prince Edward Island Department of Fisheries, Aquaculture and Environment. (2023). State of the Environment. https://www.gov.pe.ca/photos/original/fae_soe_report.pdf

11 – Government of Prince Edward Island. (2021, October 20). Climate Change Risks. <https://www.princeedwardisland.ca/en/information/environment-energy-and-climate-action/climate-change-risks>

